CLAIMS

1.   A method for decoding a bitstream comprising the steps of:

(A) generating a first field picture in response to a frame picture of a first bitstream;

5   (B) generating a second field picture in response to said frame picture of said first bitstream; and

(C) generating a second bitstream comprising said first field picture and said second field picture.

2.   The method according to claim 1, wherein said generating steps further comprise:

copying a frame header from said first bitstream into a first field header portion of a first field buffer and a second

5   field header portion of a second field buffer; and

modifying (i) a portion of said first field header portion to indicate a top field picture and (ii) a portion of said second field header portion to indicate a bottom field picture.

3.   The method according to claim 1, wherein said generating steps further comprise:

copying a plurality of slice rows from said first bitstream to said first field buffer and said second field buffer, wherein said copying alternates between said first and said second buffers after each slice row.

4. The method according to claim 3, wherein said generating steps further comprise:

adjusting a slice number of each slice row in said first field buffer and said second field buffer to increment consecutively.

5. The method according to claim 1, wherein step (C) further comprises:

writing said first field picture and said second field picture consecutively to said second bitstream.

6. The method according to claim 4, wherein step (C) comprises:

writing said first field buffer followed by said second field buffer to said second bitstream.

7. The method according to claim 1, further comprising the step of:

presenting said second bitstream to a video decoder.

8. The method according to claim 7, wherein said video decoder is configured to support a field picture mode.

9. The method according to claim 7, further comprising:

presenting even and odd field lines on a television monitor in response to said second bitstream.

10. An apparatus comprising:

means for generating a first field picture in response to a frame picture of a first bitstream;

means for generating a second field picture in response to said frame picture of said first bitstream; and

means for generating a second bitstream comprising said first field picture and said second field picture.

11. An apparatus comprising:

a circuit configured to (i) generate a first field picture in response to a frame picture of a first bitstream, (ii) generate a second field picture in response to said frame picture

5   of said first bitstream and (iii) generate a second bitstream comprising said first field picture and said second field picture.

12. The apparatus according to claim 11, wherein said circuit comprises:

a first field buffer;

a second field buffer; and

5   a transform circuit configured to (i) copy a frame header from said first bitstream into a first field header portion of said first field buffer and a second field header portion of said second field buffer.

13. The apparatus according to claim 12, wherein said transform circuit is further configured to:

modify (i) a portion of said first field header portion to indicate a top field picture and (ii) a portion of said second

5   field header portion to indicate a bottom field picture.

14. The apparatus according to claim 12, wherein said transform circuit is further configured to:

copy a plurality of slice rows from said first bitstream to said first field buffer and said second field buffer, wherein

5   said copying alternates between said first and said second buffers after each slice row.

15. The apparatus according to claim 14, wherein said transform circuit is further configured to:

adjust a slice number of each slice row in said first field buffer and said second field buffer to increment

5   consecutively.

16. The apparatus according to claim 12, wherein said transform circuit is further configured to:

write an output from said first field buffer and an output from said second field buffer consecutively to said second

5   bitstream.

17. The apparatus according to claim 11, further comprising:

a video decoder circuit configured to receive said second bitstream.

18. The apparatus according to claim 17, wherein said video decoder circuit is further configured to support a field picture mode.

19. The apparatus according to claim 17, wherein said video decoder circuit is further configured to present even and odd field lines on a television monitor in response to said second bitstream.

20. The apparatus according to claim 11, wherein said first bitstream comprises an intra-only MPEG-2 frame picture stream.